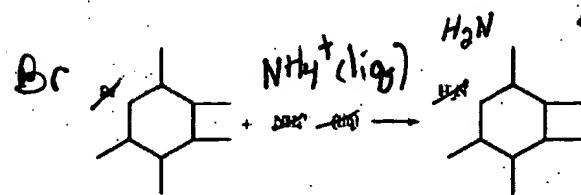
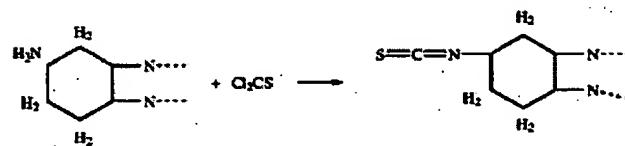


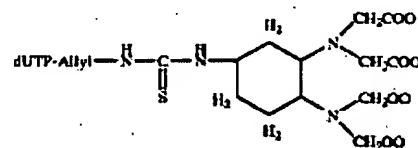
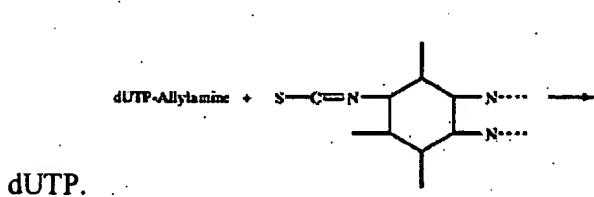
The bromine is substituted by an amino group using soluble ammonia:



Then this compound is reacted with chloro thiophosgene to produce the isothiocyanate derivative of (TCM-dANCH).



Finally, this compound is reacted with dUTP-allylamine derivative to produce modified



Cobalt or other heavy metal ions or other rare earth ions can be chelated to the compound after step 3 above. Or the nucleic acid can be substituted with this adduct and then the ion added. (Example, cobalt is added at pH 6 where the binding constant is  $10^{19}$  M).